

**WHAT IS CLAIMED:**

1. An isolated *Bacillus* PolC subunit of a DNA polymerase III-type enzyme, the isolated PolC subunit:
  - (i) comprising the amino acid sequence of SEQ ID NO: 184; or
  - (ii) being encoded by a nucleic acid molecule hybridizing to the complement of SEQ ID NO: 183 under hybridization conditions comprising at most about 0.9M sodium citrate buffer at a temperature of at least about 37°C.
2. The isolated *Bacillus* PolC subunit according to claim 1 wherein the *Bacillus* species is *Bacillus stearothermophilus*.
3. The isolated *Bacillus* PolC subunit according to claim 2 wherein the PolC subunit comprises the amino acid sequence of SEQ ID NO: 184.
4. The isolated *Bacillus* PolC subunit according to claim 1 wherein the PolC subunit is encoded by a nucleic acid molecule that hybridizes to the complement of SEQ ID NO: 183 under hybridization conditions comprising at most about 0.9M sodium citrate buffer at a temperature of at least about 37°C.
5. The isolated *Bacillus* PolC subunit according to claim 1 wherein the PolC subunit is purified.
6. A DNA polymerase III core complex comprising the *Bacillus* PolC subunit according to claim 1.
7. A DNA polymerase III-type enzyme complex comprising the core complex according to claim 6.
8. A DNA polymerase III-type enzyme complex comprising the *Bacillus* PolC subunit according to claim 1.
9. A kit comprising:
  - a container that contains therein either a deoxynucleoside triphosphate or a dideoxynucleoside triphosphate; and
  - a container that contains therein the polymerase III-type enzyme complex according to claim 8.